



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: REMERICQ, MAURICE

SERIAL NO.: 10/047,907

ART UNIT: 3652

FILED: January 15, 2002

EXAMINER: BRAHAN, T.J.

RECEIVED  
DEC 19 2003  
GROUP 3600

TITLE: PROCESS AND A DEVICE FOR THE ON-LINE STORAGE OF SETS OF FLAT PRODUCTS SUCH AS, IN PARTICULAR, DISPOSABLE LINERS OR SANITARY NAPKINS

Amendment A: CLAIM AMENDMENTS

Please cancel Claims 1 - 18 and substitute Claims 19 - 36 therefor as follows:

Claims 1-18 (canceled).

19. (new) A process for on-line storage of sets of flat products in which the products are transported between an input station and an output station, the process comprising:

By introducing the sets of flat products at a given arrival rate at the input station within a presser, said presser being movable with the sets, said presser having an open configuration;

pressing the sets of flat products against one another by causing said presser to change over from said open configuration to a holding configuration;

directing the sets of flat products toward the output station; and

ejecting the sets of flat products at the output station at a given output rate, said output rate being a function of an input rate at said input station to manage an accumulation of sets of flat products between the input station and the output station.

20. (new) The process according to Claim 19, said presser traveling in a loop by directing said presser, after the ejecting of the sets, from the output station to the input station, said presser passing from said holding configuration to said open configuration.

21. (new) The process according to Claim 19, said sets traveling between the input station and the output station along a path the length of which is variable as a function of the input or output rate in order to manage said accumulation.

22. (new) The process according to Claim 19, further comprising:

providing a stream of sets of variable size, said holding configuration of said presser is adapted according to the size of the sets directed.

23. (new) A device for on-line storage of sets of flat products comprising:

an input station;

an output station;

a means for conveying the sets between said input station and said output station;

a pressing means for moving with said means for conveying, said pressing means for changing from an open configuration permitting an introduction of the sets into said means for conveying at a given input rate, to a holding configuration in which the flat products are pressed against one another;

a means for causing said pressing means to change over from said open configuration to said holding configuration, said means for causing provided at said input station;

a means for ejecting the sets provided at said output station for ejecting the sets at a given output rate; and

a means for generating an accumulation of the sets between said input station and said output station as a function of a rate of input or a rate of output.

24. (new) The device according to Claim 23, said means for conveying moving along a looped path, the device further comprising means for causing said pressing means to change over from said holding configuration to said open configuration provided in a direction of progress of said means for conveying between said output station said input station.

25. (new) The device according to Claim 24, said means for causing said pressing means to change over from said holding configuration to said open configuration being provided in an area of said output station.

B6 26. (new) The device according to Claim 23, said means for conveying having a plurality of pods, each of said plurality of pods being capable of accommodating at least one set of the sets of flat products, said pressing means having two carriages slidable toward each other on the pod, said pressing means having a means for holding said two carriages spaced apart by a given distance.

27. (new) The device according to claim 26, said means for holding the carriages comprising first and second blocking means capable of engaging with one another, said first blocking means being secured to said carriage, said second blocking means being articulated in relation to said pod, said means for holding the carriages having a locking means borne by said pod, said locking means for forcing an engagement of said second blocking means with said first blocking means.

28. The device according to Claim 27, said means for causing said pressing means to change over from said open configuration to said holding configuration comprising:

a first jack secured to an armature fixed in relation to which the pod travels, said first jack being capable of acting upon said locking means to disengage said first and second blocking means and leave them free in relation to one another; and

a second jack secured to said armature said second jack being capable of causing said two carriages to slide toward each other between said open configuration and said holding configuration.

29. (new) The device according to Claim 28, further comprising:

means for adapting said product holding configuration to a size of the sets of flat products.

B6 30. (new) The device according to Claim 29, said means for adapting said product holding configuration is comprised by stops that are mobile in relation to said fixed armature, said stops being capable of limiting a travel of said second jack so as to adjust the minimum spacing of said carriages.

31. (new) The device according to claim 23, said means for ejecting comprising a thrust bearing and a means for displacing said thrust bearing in a first direction, said means for displacing comprising means for generating a force in a second direction substantially perpendicular to said first direction and by a means for transmitting said force, said means for generating the force cooperating with said thrust bearing.

32. (new) The device according to Claim 31, in which said means for transmitting the force comprising two arms forming two equal sides of an isosceles triangle, said isosceles triangle having axis of symmetry which is defined by said first direction and by means for bringing together or separating said arms by deforming said triangle while preserving the shape of the isosceles triangle and the orientation of said axis of symmetry.

33. (new) The device according to Claim 32, said arms having ends cooperative with one another in the area of said thrust bearing, said arms having opposite ends mounted so as to be articulated on skids sliding on a rail substantially perpendicular to the axis of symmetry of said isosceles triangle.

34. (new) The device according to Claim 33, said means for generating the force comprising at least one jack driving said skids.

35. (new) The device according to Claim 34, said means for generating the accumulation of sets comprising means for varying a length of the path taken by said means for conveying.

B<sub>b</sub> 36. (new) The device according to Claim 35, said means for conveying comprising at least one belt forming a loop of a fixed length, said means for varying the length of the path comprising:

a first pair of driving drums drivingly connected to said belt;

a means for actuating said first pair of driving drums; and

a second pair of drums about which said belt travels, the first drum and a second drum of said second pair being respectively provided between the first driving drum and the second driving drum and between the second driving drum and the first driving drum, said first drum and second drum of said second pair being held at a constant distance from one another, said second pair of drums being mobile in relation to said first pair of driving drums.

---